

REMARKS

Claims 1-106 are pending in the present application. Claims 3-13, 15-28, 30-34, 38-40, 42, 45-51, 54-74, 77-82, 94-98, 100-102 and 104-106 are allowed, and Claims 1, 2, 14, 29, 35-37, 41, 43, 44, 52, 53, 75, 76, 83-93, 99 and 103 stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 2, 14, 29, 35-37, 41, 43, 44, 52, 53, 75, 76, 83-93, 99 and 103 stand rejected under 35 U.S.C. §102 as being anticipated by lida et al., U.S. 5,874,707. The Outstanding Office Action states that Figure 1 in lida et al. shows torch head 3 connected to torch leads through quick connector 2, via pins and socket. Applicants respectfully request reconsideration of these rejections in light of the following remarks.

Claims 1, 2, 14, 37, 41, 43, 44, 99, 103 all require a torch lead, and more specifically a quick disconnect between a torch head and a torch lead (Claims 1, 2 and 14), within a distal end of a torch lead (Claims 37, 41, 99, 103), within a proximal end of the torch lead (Claims 43), at both a distal end and a proximal end of the torch lead (Claim 44). A torch lead, as described in the specification and understood in the art, is a component or conduit that provides both fluid and electrical connection between a plasma arc torch head and a power supply. See, for example, the flexible torch lead 16 as illustrated in Figure 1 of the present application. Applicants submit that lida et al. is silent as to any such torch lead, and as such, lida et al. cannot anticipate the rejected claims.

More specifically, lida et al. discloses a connecting structure (a ring member 2a, a plurality of engaging grooves 25, a ring member 26, and engaging projections 28) **between two portions of a torch head**, which is generally made up of two separable portions to facilitate replacement of consumables, such as an electrode, a cathode, a nozzle and a gas distributor. The connecting structure of lida et al. is actually used to connect the two separable portions of the torch head, (torch head 3 and torch base 2), despite lida et al. referring to one of the torch head as “a torch head 3.” There is no teaching or suggestion of any torch lead in lida et al., let alone the use of a torch lead to connect a power supply to a torch head.

Without disclosing a torch lead that connects the torch head to a power supply, and in light of the disclosure of lida et al. being limited to a quick disconnect between two portions of a torch head, lida et al. cannot anticipate Claims 1, 2, 14, 37, 41, 43, 44, 99, and 103. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn.

Claims 29 and 35 have been amended to clarify that the quick disconnect member is radially deflectable and that the torch head and the torch component are assembled and disassembled through radial deflection of the quick disconnect member. The connecting structure of lida et al. includes two ring members 2a and 26 with a plurality of engaging projections 28 for engaging a plurality of engaging grooves 25 is not radially deflectable and thus cannot anticipate Claims 29 and 35. Accordingly, Applicants respectfully request that the rejection of Claims 29 and 35 be withdrawn.

Claim 36 requires at least two quick disconnect members be provided within a single torch head, one at a proximal end and the other at a distal end of the torch head.

However, lida et al. discloses only one connecting structure for a quick disconnect at only one end and thus cannot anticipate Claim 36. Accordingly, Applicants respectfully request that the rejection of Claim 36 be withdrawn.

Claims 52 and 53 require that a quick disconnect member be disposed within a distal end (Claim 52) or a proximal end (Claim 53) of a gas control device. lida et al. cannot anticipate Claims 52 and 53 because lida et al. is silent as to any kind of gas control device. lida et al. discloses a gas passage, not a gas control device. Accordingly, Applicants respectfully request that the rejection of Claims 52 and 53 be withdrawn.

Claims 75, 76 and 83-93 require a modular plasma arc torch to comprise a **plurality of** quick disconnects operatively engaged between a plurality of torch components. Thus the essence of the term “modular” as used in the present application, wherein a plurality of torch components can be easily connected and disconnected through the use of a plurality of quick disconnects. “A plurality of quick disconnects” means **more than one** quick disconnect. In contrast, lida et al. discloses only one quick disconnect, and more specifically is limited to a single torch component, i.e. the torch head, and thus cannot anticipate the modular plasma arc torch with a plurality of quick disconnects to connect a plurality of torch components. Accordingly, Applicants respectfully request that these claim rejections be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections. It is

believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

Dated: 01 AUG 05

By: Kelly K. Burris
Kelly K. Burris
Reg. No. 46,361

Harness, Dickey & Pierce, P.L.C.
7700 Bonhomme Rd., Suite 400
St. Louis, MO 63105
(314) 726-7500